

# Problem Set - 2

## Introduction

Welcome to the second problem set of MLOO1! In this problem set you will find some problems to do by yourself.

This problem set will test your skills based on section-2, so I highly recommend you to first watch section-1 and then start with this assignment.

## Problems

- 1.) What is Linear Regression? Can you share the intuition behind linear regression? Why regression why not classification?
- 2.) Write about Linear regression algorithm as a pseudocode and explain about linear regression.
- 3.) Implement a linear regression algorithm from scratch using any of your fav programming languages. [ don't use any libraries ]
- 4.) What is Overfitting and underfitting?
- 5.) How can we prevent underfitting and overfitting?
- 6.) What is regularization?
- 7.) Write Ridge and Lasso regression from scratch in python?
- 8.) Take a regression dataset from UCI ML Repo and Implement Linear Regression and regularized linear models using Sklearn.

## Submission Guidelines:-

You have to submit it through our official discord server and forms are provided on the course website to submit your problem set and you can discuss your answers in the discord community.

